

6241

BOARD DIPLOMA EXAMINATIONS

OCT/NOV-2019

DEEE- THIRD SEMESTER

ELECTRONICS ENGINEERING -I

Time:3 hours

Max. Marks:80

PART – A

10X3= 30M

Instructions: 1. Answer *all* questions.
 2. Each question carries three marks.
 3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. Distinguish between P type and N type semiconductors.
2. List different transistor configurations.
3. State the function of voltage regulated power supply.
4. What are the advantages of bridge rectifier over center tapped rectifier.
5. List any three applications of Photo diode.
6. Draw the V-I Characteristics of SCR.
7. State the need for bias stabilization in transistor.
8. Classify the Amplifiers on the basis of frequency range.
9. Distinguish between voltage and power amplifiers.
10. List the advantages of negative feedback.

PART – B

5 X 10 = 50

Instructions:

1. Answer any **Five** questions
2. Each question carries **TEN** Marks.
3. Answer should be comprehensive and Criteria for Valuation is the content but not the length of the answer.

11. Explain the working of PN junction diode with no bias, forward bias and reverse bias.
12. Explain the working principle of the bridge rectifier with circuit diagram and waveforms.
13. Explain the Construction and working of LED.
14. Explain the construction and working of UJT.
15. Explain the potential divider biasing method.
16. a) Explain the operation of transistor as an amplifier. 5M
b) Explain the necessity of cascading of amplifiers. 5M
17. Explain the working of RC coupled amplifier with neat circuit diagram and draw its frequency response curve.
18. Draw the block diagrams of voltage series, voltage shunt, current series and current shunt feedback amplifiers.